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(54) **A bearing lubrication device, an output shaft lubrication device and a process for lubricating an output shaft**

(57) A bearing (131; 132) lubrication system includes a stationary output shaft carrier (150) housed within a gear housing (101) wherein the output shaft (103) resides partially within the carrier and upper and lower bearing (131; 132)s support the shaft. The carrier includes first and second arcuately extending troughs (121; 125) for catching lubricating fluid (201) slung by an oil slinger (141). The first trough (121; 125) is in fluid communication with the shaft and with the upper bearing (131; 132) which pumps fluid (201) through the bearing (131; 132) and into an upper passageway which terminates in an opening which supplies fluid (201) to a second trough (121; 125) which, in turn, supplies fluid (201) to the second bearing (131; 132) which, in turn, supplies fluid (201) to the annular pool formed on the upper portion of the gear affixed to the output shaft (103). The annular pool is formed by a cylindrically shaped dike secured to the upper portion of the gear. Overflow from the pool lubricates the gear and returns oil to the reservoir.

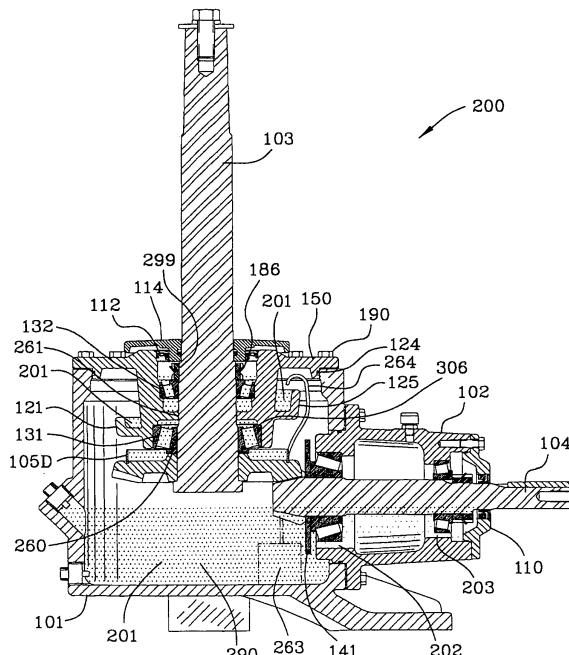


FIG. 2



## EUROPEAN SEARCH REPORT

Application Number  
EP 06 01 9821

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US 1 570 356 A (LANE FRANKLIN L) 19 January 1926 (1926-01-19)	20,21	INV. F16C33/66
A	* column 1, line 45 - column 3, line 60; figure 1 *	1-3,8, 10,11, 14, 17-19,23	F16N7/36 F16H57/04 F16H1/14
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	* column 3, line 23 - column 9, line 66; figures 1-17 *		
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	* column 3, line 61 - column 5, line 33; figures 1-5 *		
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The present search report has been drawn up for all claims			
2	Place of search	Date of completion of the search	Examiner
	Munich	12 December 2008	Fischbach, Gerhard
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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